DNR Project Number 178

Title: Monitoring and Predictive Modeling of Subdivision Impacts on Groundwater in Wisconsin

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Abstract: How do unsewered rural subdivisions impact groundwater quality and quantity? The goal of this project is to develop predictive groundwater flow models - based on a field site currently under development - to aid in assessing the potential effects of rural subdivision development in south-central Wisconsin. Groundwater data, including both hydraulic and water quality parameters, will be collected before, during, and after development of a new, unsewered rural subdivision in eastern Dane County, Wisconsin. Based on data collected at this site the investigators will develop both specific and generic groundwater flow and transport models in order to predict changes in groundwater quality, groundwater levels, and groundwater flow rates at this and similar sites in glaciated landscapes. Results of this project should be of interest to land use planners and developers seeking to understand the impacts of various subdivision alternatives during rural development.

Work Location: Dane County, Wisconsin

Project Duration: July 1, 2003 to June 30, 2005

Year 1 Budget (2003-04): $35,853
Year 2 Budget (2004-05): $37,488